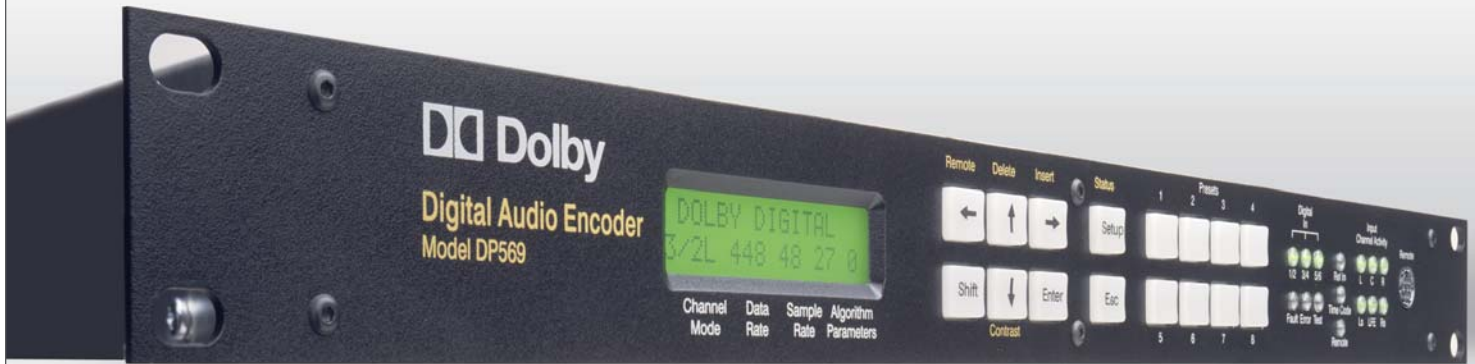




DP569 Multichannel Dolby Digital Encoder



The Dolby DP569 is the reference Dolby Digital multichannel audio encoder for digital television and DVD authoring applications.

The DP569 is designed for digital television and disc-authoring applications, including automated broadcast installations and mastering for DVD and other recorded media. Supporting encoded bit ranges from 56 to 640 kbps and channel configurations from mono to 5.1-channel surround sound, the DP569 is our reference encoder for Dolby® Digital multichannel audio.

Features for Broadcast and DVD Authoring

With reliability proven in hundreds of TV stations around the world, the DP569 offers many broadcast-friendly features. Among them, an AES reference input locks the DP569 to the transmission equipment clock reference. The unit features selectable sample rate converters on the audio inputs. For on-air and other broadcast applications, the DP569 is capable of creating SMPTE 339M time stamp data bursts for synchronization with downstream equipment.

LTC and VITC timecode inputs allow Dolby Digital bitstreams to be time-stamped to synchronize with audio and video in DVD-authoring systems. The timecode inputs allow the encoder to stop and start accurately to create separate program segments

and soundtrack files for DVD authoring. The DP569 supports all metadata, including the Dolby Digital Surround EX™ flag that enables downstream consumer A/V receivers and decoders to recognize the format. The unit provides real-time encoding for DVD authoring facilities and allows QC monitoring during the recording process.

A rear-panel connector provides an external metadata input from other Dolby products (for example, a DP572 Dolby E decoder). Fault-monitoring circuits warn of actual or potential system failure (via the GPI/O port), and bypass connections enable a hot-standby mode for broadcast installations.

Front-panel controls include buttons for accessing status, setup and configuration parameters, and display modes. Front- and rear-panel serial interfaces, along with supplied application software, make it possible to configure and control the DP569 from a Windows®-based PC or other remote device.

For decoding Dolby Digital material, the Dolby DP564 Multichannel Audio Decoder is an ideal companion to the DP569. The DP564 also provides decoding for Dolby Digital Surround EX, Dolby Pro Logic®, and Dolby Pro Logic II formats.

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DP569 Front Panel



Display and Controls

Two-line, 16-character LCD with control keys

Tricolor Status LEDs

Indicate channel activity, digital input lock, ref in, timecode, remote, fault, and error

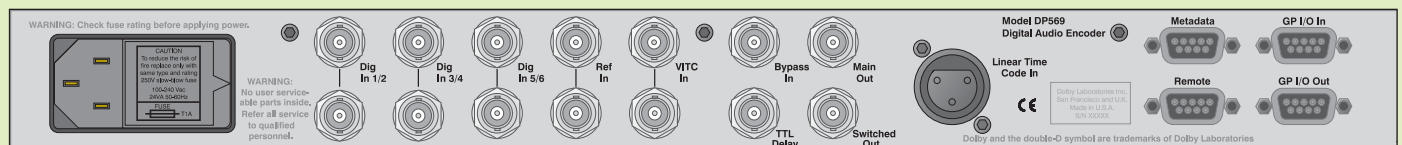
Presets

Recalls eight user-definable configurations

RS-232 Serial Input Port

8-pin female mini-DIN connector for remote control and software upgrades

DP569 Rear Panel



Digital Audio Inputs

Main audio inputs: three BNC female connectors with loop-through, unbalanced, 75Ω, signal levels per AES-31D-1995 (SMPTE 276M), external 75Ω termination required

Reference input: BNC female with loop-through, unbalanced, signal levels per AES-31D-1995 (SMPTE 276M), external 75Ω termination required

Bypass input: relay switched to Switched Output during bypass or hot standby condition

Digital Audio Outputs

Main and Switched Out: BNC female, unbalanced, 75Ω, signal levels per AES-31D-1995 (SMPTE 276M)

Timecode Input

LTC in: 3-pin XLR female, balanced, 10 kΩ
VTC in: BNC female with loop-through, unbalanced, 75Ω

RS-485 Serial Remote Control Input Port

9-pin female D-connector, RS-485 (SMPTE 207M) compatible

Metadata Input Port

9-pin female D-connector, RS-485 (SMPTE 207M), compatible with metadata output of Dolby DP572 and DP570

External Delay Input Port

BNC female, 0–5 V TTL level

General Purpose Input/Output Port

9-pin female D-connectors, 0–5 V TTL level

Audio Coding Algorithm

Dolby Digital (AC-3 as per ATSC A/52a specification)

Audio Sampling Rates

32, 44.1, or 48 kHz; user-selectable sample-rate conversion for independent input and encoded sampling rates

Frequency Response

Lower limit: <20 Hz; upper limit varies with data rate, sample rate, and channel mode; ±0.25 dB

Distortion

<0.01% at 1 kHz
<0.02%, 20 Hz algorithm upper limit

Dynamic Range

>110 dB

Coding Delay

Varies depending on operating mode; minimum 187 ms to maximum 450 ms
User-specified or automatic from external TTL pulse (External Delay Input)

Test Tone Generator

1 kHz (nominal) tone at 18 dB, 20 dB, or ∞ dB (digital silence) referenced to digital full-scale

Power Requirements

90–264 VAC, 50–60 Hz, auto sensing, 15 W maximum; this unit is designed to operate from a centrally switched power source

Dimensions and Weight

1-U rackmount: 44 × 483 × 305 mm (1.75 × 19 × 12 inches)
Net: 3.9 kg (8.5 lb)

Environmental Conditions

5°C–45°C (41°F–113°F), natural convection cooling
0%–90% relative humidity (noncondensing)

Regulatory Notices

North America: This unit complies with the limits for a Class A digital device pursuant to Part 15 of the FCC rules and Industry Canada ICES-003 Class A requirements. It is UL Listed for the US and Canada.

Europe: This unit complies with the requirements of Low Voltage Directive 73/23/EEC and EMC Directive 89/336/EEC and carries the CE marking accordingly.

Warranty

One-year limited, parts and labor; see disclaimer. Specifications subject to change without notice.

Disclaimer of Warranties

Equipment manufactured by Dolby Laboratories is warranted against defects in materials and workmanship for a period of one year from the date of purchase. There are no other express or implied warranties and no warranty of merchantability or fitness for a particular purpose, or of noninfringement of third-party rights (including, but not limited to, copyright and patent rights).

Limitation of Liability

It is understood and agreed that Dolby Laboratories' liability, whether in contract, in tort, under any warranty, in negligence, or otherwise shall not exceed the cost of repair or replacement of the defective components or accused infringing devices, and under no circumstances shall Dolby Laboratories be liable for incidental, special, direct, indirect, or consequential damages (including, but not limited to, damage to software or recorded audio or visual material), cost of defense, or loss of use, revenue, or profit, even if Dolby Laboratories or its agents have been advised, orally or in writing, of the possibility of such damages.

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